

**Listing of Claims:**

The following listing of claims replaces all prior versions and listings of claims in the application. Additions are indicated by underlining and deletions are indicated by ~~striking through~~.

1. – 72. **(Canceled)**

73. **(Currently Amended)** A method for modifying the effector function of an initial antibody, the method comprising:

- (a) ~~providing at least one~~ a nucleic acid derived from ~~at least one~~ an immunoglobulin heavy chain constant region of said initial antibody;
- (b) recombining the ~~at least one~~ nucleic acid with one or more second nucleic acids to produce a library of recombinant immunoglobulin constant region nucleic acids;
- (c) optionally repeating the recombination process of steps (a) and (b) one or more times;
- (d) expressing and screening the library for a modified effector function and selecting from the library at least one recombinant immunoglobulin constant region nucleic acid encoding which encodes a Fc region with a desired property which exhibits the modified effector function;
- (e) optionally repeating steps (a) through (d) one or more ~~time~~ times until the Fc region encoded by the selected recombinant immunoglobulin constant region nucleic acid has acquired a desired ~~property~~ level of modified effector function.

74.- 76. **(Canceled)**

77. **(Currently Amended)** The method of claim 73, wherein the screening of the library for modified effector function ~~comprising selecting the at least one recombinant immunoglobulin constant region nucleic acid~~ comprises an *in vitro* assay.

78. **(Currently Amended)** The method of claim 77, wherein the ~~selecting is performed by an *in vitro* assay~~ selected from comprises: Fc receptor binding, complement fixation, complement mediated cell lysis, ~~and~~ activation of a proteolytic complement component, ~~and or~~ flow cytometry.

79. **(Currently Amended)** The method of claim 73, wherein the screening of the library for modified effector function ~~comprising selecting~~ selecting the at least one recombinant immunoglobulin constant region nucleic acid comprises an *in vivo* assay.

80. **(Currently Amended)** The method of claim 79, wherein the ~~selecting is performed by an *in vivo* assay~~ selected from: serum half life, comprises subjecting an experimental animal host to a lethal pathogenic challenge, toxin neutralization, small molecule clearance, half life extension of a protein pharmaceutical, and tumorigenesis.

81. **(Currently Amended)** The method of claim 73, wherein the ~~desired property~~ modified effector function is selected from among: K<sub>d</sub> of: altered Fc receptor binding, K<sub>d</sub> of: altered C1q binding, and altered activation of C1q the proteolytic components of complement activity.

82. – 88. **(Canceled)**

89. **(New)** The method of claim 81, wherein the modified effector function is altered Fc receptor binding, and the desired level of modified effector function is increased or decreased Fc receptor binding activity relative to the Fc receptor binding activity of the Fc region of said antibody.

Erik Karrer, *et al.*  
Application No.: 10/686,945  
Filed: Oct. 16, 2003  
Amendment  
page 6 of 12  
-----

Attorney Docket No.: 0241us320

90.     **(New)** The method of claim 73, wherein the nucleic acid provided in step (a) encodes a CH2 domain, a CH3 domain, or a CH2 domain and a CH3 domain.